PROPOSAL FOR IGC PLENARY 2023

by Poland

Subject: Introducing new starting method in Annex A

Proposal:

It is proposed to introduce following starting method into Annex A in addition to existing ones:

Task starting area is defined as a cylinder of 10 km radius. Task has specified maximum allowable height loss between start and finish. Being anywhere inside the starting area the pilot is declaring the task starting point by effecting Event Marker (PEV). Pilot's individual start point exact time, coordinates and altitude is used to calculate marking distance and task average speed. If height loss between start and finish is greater than the specified on task sheet pilot will receive penalty points.

- For safety purposes ground speed during starting moment should be limited and experience shows that for ballasted gliders it shouldn't be less than 170km/h.
- To avoid leaching and gaggles, Event Marker interval of minimum 5 – 15 minutes should be required.
- Height loss of 1000 m works well in usual European weather conditions however it should be possible to adjust it in order to assure adequate separation from the cloud base/thermal height during task start.

Reasons supporting proposal:

In the opinion of many competition pilots, task start is one of the most dangerous moments during competition flight. With the present start line, we frequently observe gliders piling up in very small area and at similar altitude. As all the pilots are trying to start the task as high as possible it usually takes place just below the cloud base and on a blue thermal day at the inversion level. Additionally gliders which have already started the task are passing on opposite courses those who are flying towards the start line and again usually just below the cloud base with reduced visibility.

The idea behind the proposal is to separate/scatter gliders over a bigger area and using maximum altitude loss condition make pilots starting the task on different altitudes. Usually, with such a starting method, task start happens in the thermal with relatively low speed or flying straight towards the first point.

Additional advantage of maximum height loss is that pilots without being penalized can set their target finish altitude by adjusting starting task altitude. This could be a huge safety benefit when flying in difficult terrain or when pilots are not comfortable/familiar with the airfield.

This starting method has been tested in Poland for the last year on most Polish competitions and general opinion from pilots is very positive. For the main disadvantage, lack of navigation/scoring software support has been pointed out, however it seems fairly easy to overcome. Survey after the 2022 flying season has been published online and 75% out of approximately 70 pilots supported the idea. Survey results are attached to the proposal.

Beforementioned Survey is available at https://forms.gle/GWfutByLfUeBr9ot7

From experience, starting area cylinder radius of 10km works best, 5km radius seems to be too small to give pilots the opportunity of finding their own starting position. In certain circumstances bigger radius could do better however in such a case extension of time between last take-off and start opening should be considered.

Documents affected:

Annex A to Sporting Code Section 3 – Gliding

Attachment:

Excerpt from Polish Gliding Competition Rules implementing proposed starting method concept

Attachment to the proposal: “Introducing new starting method in Annex A”

Excerpt form Polish Gliding Competition Rules

The Start with use of Departure Zone

1. The organizer may implement the Start with use of Departure Zone. It must be stated in Local Rules.
2. Start Point is the center of Start Ring.
3. The only start option is a circle.
4. Minimum circle radius is 10 km.
5. A Start is valid if the flight log shows a valid fix inside Start Ring, after the opening of the Start or if the flight log shows a straight line between following fixes that crosses the Start, after the opening of the Start.
6. To make a Start competitor has to mark a fix via activation of EM function. Any activation of EM makes previous EM invalid. Start Time is the time of EM activation (Start Moment). The fix at Start Moment should be inside Start Zone.
7. A distance of the first leg is a distance between the fix at Start Moment and first Waypoint or first Zone.
8. If the last activation of EM is before start opening, then Start Moment will be counted at start opening (if exactly at start opening there is no recorded fix or fix is not inside Start Zone, Start Moment is the first fix recorded after start opening and inside Start Zone).
9. If the last activation of EM has happened before the glider has entered Start Zone, the Start Moment is the first fix inside Start Zone.
10. If Start Moment has happened when the glider has left Start Zone, the first leg distance is calculated form Start Moment, and Start Time is the time of last fix inside the Start Zone. This is valid only if Start Moment is not later than 1 minute after leaving Start Zone.
11. Minimum time interval between following starts is 10 min.
12. If the time interval between last activation of EM and previous activation is less than interval (each Start Moment is taken into account), the valid Start is the last Start but with penalty – competitor task time is increased with the result of following subtraction:
13. (10 minutes) – (difference between last Start Moment and previous Start Moment).
14. The above subtraction should be not less than zero. The rule is to protect competitor for inaccurate counting of interval and decries workload.
15. If the time interval between last activation of EM and previous activation is less than 2 minutes, that second start is valid. Only one start repeating within 2 minutes is allowed. This is to allow immediate repeating of start if competitor is unsure about previous one validity.
16. If no Start has been declared via EM or Start Moment was later than 1 minute after Start Zone leaving, than valid Start is the last leaving of Start Zone (crossing the Start Zone boundary), but the penalty is:
    - First offence – task time + 5 minutes,
    - Any next – task time + 10 minutes.
17. If a competitor has declared more than 2 GNSS recorders (in competition or any task), only declared as a 1st (primary) and 2nd (secondary) will be taken for EM scoring.
18. The Competitor has to deliver flight log from 1st recorder. If, from any circumstances, there is a need to check 2nd recorder, the last EM activation from both recorders will be used for scoring.

19. The Organizer may specify in the Task Sheet the Maximum Loss of Height (MLH) between the Start Moment and the Finish Ring. In this case, a ground speed limit at the Start Moment should be specified (penalty is 1 point for every 1 km/h, but not more than 30 points).
20. If a competitor crosses the Finish Ring with a loss of height greater than the MLH, penalty points are applied. The sum of the penalty points so applied may not be greater than the number of speed points achieved by the competitor in the given task.
21. Penalty - 1 point for every 3 m above the MLH, but not more than 15% of points achieved by the winner of the day.
22. If, after crossing the Finish Ring, the competitor climbs above the MLH, then the time of reaching the MLH could be considered as the finish time.
23. It is recommended to adjust MLH to the cloud base/thermal height during task start.